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(71)Applicant : **mitsubishi electric corp**

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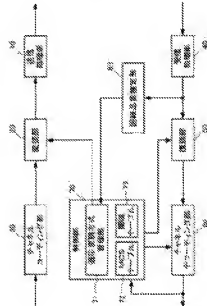
(54) MOBILE COMMUNICATION SYSTEM AND ADAPTIVE MODULATION METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a mobile communication system and an adaptive modulation method capable of adaptively changing each of modulation methods and each of Error Correction Coding methods by quickly reflecting the line quality estimated at a mobile station in selecting one of the modulation methods and one of the Error Correction Coding methods.

SOLUTION: A threshold for changing adaptive modulation levels each having a different transmission rate in response to the line quality by combining the modulation methods and the Error Correction Coding methods, a threshold table 73 is provided with a referential threshold table, a low threshold table having lower threshold level than that of the referential threshold table by a predetermined level, and a high threshold table having higher threshold level than that of the referential threshold table by a predetermined level.

An adaptive modulation management unit 71 is designed to determine whether or not to request for changing selected adaptive modulation level by using the low threshold table when the adaptive modulation level is to be lowered again after having been lifted, and to determine whether or not to request for changing the selected adaptive modulation level by using the high threshold table when the adaptive modulation level is to be lifted again after having been lowered.



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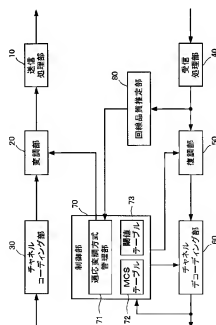
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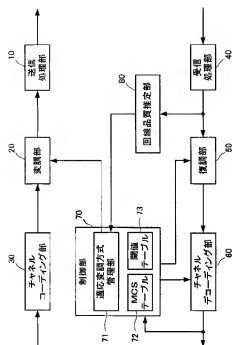
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(54) 【発明の名称】 移動通信システムおよび適応変調方法





適応変調方式レベル (MCS)	変調方式	誤り訂正符号化率
MCS1	QPSK	1/2
MCS2	QPSK	3/4
MCS3	16QAM	1/2
MCS4	16QAM	3/4

MCS	閾値 (SNR)	
	所要FER=10E-1	所要FER=10E-2
1		
2	$\gamma + 3\text{dB}$	$\gamma + 10\text{dB}$
3	$\gamma + 6\text{dB}$	$\gamma + 13\text{dB}$
4	$\gamma + 9\text{dB}$	$\gamma + 16\text{dB}$

MCS	閾値 (SNR)	
	所要FER=10E-1	所要FER=10E-2
1		
2	$\gamma + 2\text{dB}$	$\gamma + 9\text{dB}$
3	$\gamma + 5\text{dB}$	$\gamma + 12\text{dB}$
4	$\gamma + 8\text{dB}$	$\gamma + 15\text{dB}$

MCS	閾値 (SNR)	
	所要FER=10E-1	所要FER=10E-2
1		
2	$\gamma + 4\text{dB}$	$\gamma + 11\text{dB}$
3	$\gamma + 7\text{dB}$	$\gamma + 14\text{dB}$
4	$\gamma + 10\text{dB}$	$\gamma + 17\text{dB}$

